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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,625	04/12/2004	Michael Krebs	HENK-0066/H5395	3301
38857	7590	05/31/2006	EXAMINER	
WOODCOCK WASHBURN LLP ONE LIBERTY PLACE, 46TH FLOOR PHILADELPHIA, PA 19103			NILAND, PATRICK DENNIS	
			ART UNIT	PAPER NUMBER

1714

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/822,625

Applicant(s)

KREBS ET AL.

Examiner

Patrick D. Niland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/12/04</u> . | 6) <input type="checkbox"/> Other: ____. |

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1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 11/042742. Although the conflicting claims are not identical, they are not patentably distinct from each other because, although the claims differ in scope, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to make the polyurethane of the copending application using the instantly claimed amounts of 2,4' diphenylmethane diisocyanate as the polyisocyanate of the copending claimed polyurethane hotmelt adhesive because the copending specification defines the claimed polyisocyanate as being 2,4' diphenylmethane diisocyanate at page 10, lines 19-20 which falls within the scope of the instant claims 1, 6-8, and the other claimed isocyanate amounts. See all of the claims particularly claim 7 for the instantly claimed polyols. One must react these components to give the polyurethane of the copending claims and it is not seen that the temperature rises above those of the instant method claims.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to make the polyurethane of the copending application using the instantly claimed amounts of 2,4' diphenylmethane diisocyanate and the instantly claimed temperatures. It is not seen that other steps are required to arrive at the instantly claimed monomeric isocyanate content of claims 20-21 and 24-25. Where there is only slight excess NCO, the instantly claimed monomeric isocyanate contents are particularly expected. The resulting NCO terminated polyurethanes are "reactive" as recognized in the prior art. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Claims 1-31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of copending Application No. 10/873884. Although the conflicting claims are not identical, they are not patentably distinct from each other because, although the claims differ in scope, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to make the polyurethane of the copending application using the instantly claimed amounts of 2,4' diphenylmethane diisocyanate as the polyisocyanate of the copending claimed polyurethane hotmelt adhesive because the copending claims 4 and 6 specify the claimed polyisocyanate as being 2,4' diphenylmethane diisocyanate which falls within the scope of the instant claims 1, 6-8 and the other claimed isocyanate amounts. See claims 7-10 for the instantly claimed polyols. They are expected to have the properties of the instant claims 9-12 since their identities and molecular weights match those of the instant claims. Since they are thermoplastic they can melt and therefore will melt and therefore will stick to something, i.e. they are hot melt adhesives. Where excess NCO is used they are also clearly reactive. The copending method claims use the instantly claimed

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temperatures. Claim 3 and the use of the lower amounts of monomeric isocyanate of claim 14 are expected to give the instantly claimed monomeric isocyanate contents of the instant claims 20-21 and 24-25. See claims 18-19.

4. Claims 1-31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No. 10/703341. Although the conflicting claims are not identical, they are not patentably distinct from each other because, although the claims differ in scope, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to make the polyurethane of the copending application using the instantly claimed amounts of 2,4' diphenylmethane diisocyanate as the polyisocyanate of the copending claimed polyurethane hotmelt adhesive because the copending specification defines the claimed polyisocyanate as being 2,4' diphenylmethane diisocyanate at page 12, line 38, which falls within the scope of the instant claims 1, 6-8, and the other claimed isocyanate amounts. See the tackiness of claim 1 and its requirement of a polyester coupled with the copending specification's definition of the polymeric constituents of claim 1 as being polyurethanes at page 12, lines 25-28. It would be understood that the achievement of the claimed tackiness would require the instantly claimed polyester polyols. The lowest temperature of the copending claim 9 reads on the temperatures of the instant process claims. The free NCO groups of the claims make them clearly reactive. The copending method claims use the instantly claimed temperatures. Claim 3 and the use of the lower amounts of monomeric isocyanate indicated by the presence of only one NCO group of claim 1 are expected to give the instantly claimed monomeric isocyanate contents of the instant claims 20-21 and 24-

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25. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 1-31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of copending Application No. 10/871343. Although the conflicting claims are not identical, they are not patentably distinct from each other because, although the claims differ in scope, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to make the polyurethane of the copending application using the instantly claimed amounts of 2,4' diphenylmethane diisocyanate as the polyisocyanate of the copending claimed polyurethane reactive hotmelt adhesive of copending claim 19 because the copending claim 17 recites the use of 2,4 diphenylmethane diisocyanate which falls within the scope of the instantly claimed amounts of isocyanates of claims 1, 6-8, and the other claimed isocyanate amounts. See all of the claims particularly claims 11-16 for the instantly claimed polyols. The temperature of the copending method claims is not specified as being above that of the instant claims. Copending claim 9 encompasses the instantly claimed monomeric isocyanate content of claims 20-21 and 24-25. Where there is only slight excess NCO, the instantly claimed monomeric isocyanate contents are particularly expected. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. Claims 1-31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 10-13, 16-18, 21-24, and 27-34 of copending Application No. 10/168610. Although the conflicting claims are not identical, they are not patentably distinct from each other because, although the claims differ in scope, it would

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have been obvious to one of ordinary skill in the art at the time of the instant invention to make the polyurethane of the copending application using the instantly claimed amounts of 2,4' diphenylmethane diisocyanate as the polyisocyanate of the copending claimed polyurethane reactive hotmelt adhesive of the copending claims because the copending specification defines the copending claimed polyisocyanate as being 2,4 diphenylmethane diisocyanate at page 6, lines 15-16 which falls within the scope of the instantly claimed amounts thereof and of the other claimed monomeric isocyanates. See all of the claims for the instantly claimed polyols. The temperature of the copending method recited in the copending adhesive claims is not specified as being above that of the instant claims which makes the instant method claims obvious to the ordinary skilled artisan for the reasons stated above and because they are the means by which the copending adhesive is claimed to be made. Where there is only slight excess NCO, the instantly claimed monomeric isocyanate contents of the instant claims 20-21 and 24-25 are particularly expected. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 1-31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-27 of copending Application No. 10/755702. Although the conflicting claims are not identical, they are not patentably distinct from each other because, although the claims differ in scope, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to make the polyurethane of the copending application using the instantly claimed amounts of 2,4' diphenylmethane diisocyanate as the polyisocyanate of the copending claimed polyurethane reactive hotmelt (claim 27 using the higher molecular weight polyols of claim 26 and of the instant claims) adhesive of the

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compending claims because the compending claims recite the compending claimed polyisocyanate as being 2,4 diphenylmethane diisocyanate in claims 1 and 6-8 and being within the instantly claimed amounts. See all of the claims for the instantly claimed polyols particularly claim 26. The temperature of the compending method recited in the compending adhesive claims is that of the instant method claims. See particularly claims 6-7. Where there is only slight excess NCO, the instantly claimed monomeric isocyanate contents of the instant claims 20-21 and 24-25 are encompassed and are particularly expected and claim 3 requires such amounts of monomeric isocyanate. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

8. Claims 1-22, 24-25, and 27-31 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-29 of U.S. Patent No. 5994493 Krebs. Although the conflicting claims are not identical, they are not patentably distinct from each other because, although the claims differ somewhat in scope, it would have been obvious to one of ordinary skill in the art to practice the instantly claimed inventions from the claims of the patentee because the patented claims encompass the instantly claimed invention. Moisture curing hotmelt adhesive encompasses the instantly claimed reactive adhesives. Any additional reactants of the patented claims are encompassed by "comprising" of the instant claims. "Liquid" of the patented claims polyol is expected to include "partly crystalline" polyols where the polyols of the patented claims have the upper molecular weights and linear, non-branched segments. These crystalline segments may be solvated by the other amorphous segments to give liquid final product. This reads on the instant claim 12. The patentee defines the claimed polyisocyanates as being the instantly claimed isocyanate at column

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7, lines 1-6 of their specification and claims 18 and 29. The lower molecular weight fraction of the claimed patented adhesive is the adhesion promoter of the instant claims 14-17, 19, and 22 based on the definition of average molecular weight. The claimed amounts can be thought of as being divided out of the bulk polymer without affecting the polymer of the patentee's claims which reads on the instant claims 16-17. Furthermore, the temperatures and catalysts of the patentee will necessarily give some trimerization of the polyisocyanates used in making the polymer, particularly the amine catalysts as is well documented in the art which meets the instant claim 18. The claimed NCO:OH ratios encompass those of the instant claims 4-5. Where the lower amounts of NCO are used, the free monomer contents of claims 20-21 and 24-25 are encompassed. The use of only 2,4' MDI encompasses the instant claims 6-8. Free monomeric isocyanate meets the instant claim 14. The process claims are silent regarding reaction temperature and therefore encompass all temperatures at which polyols and polyisocyanates can react, which encompasses the instantly claimed reaction temperatures of the instant claims 27-29 because these reactions are well known to occur below the claimed temperatures, particularly when catalyst is used.

9. Claims 1-22, 24-25, and 31 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6906148 Krebs et al.. Although the conflicting claims are not identical, they are not patentably distinct from each other because, although the claims differ somewhat in scope, it would have been obvious to one of ordinary skill in the art to practice the instantly claimed inventions from the claims of the patentee because the patented claims encompass the instantly claimed invention. Reactive hotmelt adhesives are inherent to those of the patentee's claims where component a contains OH

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or NCO groups as both are reactive and the claims encompass the instantly claimed reactive adhesives. Any additional reactants of the patented claims are encompassed by "comprising" of the instant claims. The polyols of the patentee's claims appear to fall within the scope of those of the instant claims including claim 12. The patentee defines the claimed polyisocyanates as being the instantly claimed isocyanate at column 4, line 23 of their specification. The lower molecular weight fraction of the claimed patented adhesive is the adhesion promoter of the instant claims 14-17, 19, and 22 based on the definition of average molecular weight. The claimed amounts can be thought of as being divided out of the bulk polymer without affecting the polymer of the patentee's claims which reads on the instant claims 16-17. Furthermore, the temperatures and catalysts of the patentee will necessarily give some trimerization of the polyisocyanates used in making the polymer, particularly the amine catalysts as is well documented in the art which meets the instant claim 18. Use of small excess of monomeric diisocyanate encompasses those of the instant claims 4-5. Where the lower amounts of NCO are used, the free monomer contents of claims 20-21, 24-25, and 31 are encompassed. The use of only 2,4' MDI encompasses the instant claims 1, 6-8, and the other claims reciting isocyanate amounts. Free monomeric isocyanate meets the instant claim 14. The process claims are silent regarding reaction temperature and therefore encompass all temperatures at which polyols and polyisocyanates can react, which encompasses the instantly claimed reaction temperatures of the instant claims 27-29 because these reactions are well known to occur below the claimed temperatures, particularly when catalyst is used.

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-22, 24-25, and 27-31 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5994493 Krebs.

Krebs discloses the instantly claimed adhesives and methods of making them at the abstract; column 4, lines 23-67, particularly lines 23-25, 27-32, and 57-60; column 5, lines 5-67; column 6, lines 1-67; column 7, lines 1-67, particularly 1-6; column 10, lines 1-67, particularly 18-45, 53, and 53-67; column 11, lines 1-67, particularly 1-18; column 12, lines 1-67, particularly 11 and 36-39; column 13, lines 1-8; column 14, lines 1-7, particularly 5-7; and the remainder of the document. Moisture curing hotmelt adhesive encompasses the instantly claimed reactive adhesives. Any additional reactants of the patented claims are encompassed by “comprising” of the instant claims. “Liquid” of the patented claims polyol is expected to include “partly crystalline” polyols where the polyols of the patented claims have the upper molecular weights and linear, non-branched segments. These crystalline segments may be solvated by the other amorphous segments to give liquid final product. This reads on the instant claim 12. The patentee defines the claimed polyisocyanates as being the instantly claimed isocyanate at column 7, lines 1-6 of their specification and claims 18 and 29. The lower molecular weight fraction of the claimed patented adhesive is the adhesion promoter of the instant claims 14-17, 19, and 22

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based on the definition of average molecular weight. The claimed amounts can be thought of as being divided out of the bulk polymer without affecting the polymer of the patentee's claims which reads on the instant claims 16-17. Furthermore, the temperatures and catalysts of the patentee will necessarily give some trimerization of the polyisocyanates used in making the polymer, particularly the amine catalysts as is well documented in the art which meets the instant claim 18. The claimed NCO:OH ratios encompass those of the instant claims 4-5. Where the lower amounts of NCO are used, the free monomer contents of claims 20-21 and 24-25 are encompassed. The use of only 2,4' MDI encompasses the instant claims 6-8. Free monomeric isocyanate meets the instant claim 14. The process claims are silent regarding reaction temperature and therefore encompass all temperatures at which polyols and polyisocyanates can react, which encompasses the instantly claimed reaction temperatures of the instant claims 27-29 because these reactions are well known to occur below the claimed temperatures, particularly when catalyst is used.

13. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5994493 Krebs.

Krebs discloses the instantly claimed adhesives and methods of making them at the abstract; column 4, lines 23-67, particularly lines 23-25, 27-32, and 57-60; column 5, lines 5-67; column 6, lines 1-67; column 7, lines 1-67, particularly 1-6; column 10, lines 1-67, particularly 18-45, 53, and 53-67; column 11, lines 1-67, particularly 1-18; column 12, lines 1-67, particularly 11 and 36-39; column 13, lines 1-8; column 14, lines 1-7, particularly 5-7; and the remainder of the document. Moisture curing hotmelt adhesive encompasses the instantly claimed reactive adhesives. Any additional reactants of the patented claims are encompassed by

“comprising” of the instant claims. “Liquid” of the patented claims polyol is expected to include “partly crystalline” polyols where the polyols of the patented claims have the upper molecular weights and linear, non-branched segments. These crystalline segments may be solvated by the other amorphous segments to give liquid final product. This reads on the instant claim 12. The patentee defines the claimed polyisocyanates as being the instantly claimed isocyanate at column 7, lines 1-6 of their specification and claims 18 and 29. The lower molecular weight fraction of the claimed patented adhesive is the adhesion promoter of the instant claims 14-17, 19, and 22 based on the definition of average molecular weight. The claimed amounts can be thought of as being divided out of the bulk polymer without affecting the polymer of the patentee’s claims which reads on the instant claims 16-17. Furthermore, the temperatures and catalysts of the patentee will necessarily give some trimerization of the polyisocyanates used in making the polymer, particularly the amine catalysts as is well documented in the art which meets the instant claim 18. The claimed NCO:OH ratios encompass those of the instant claims 4-5. Where the lower amounts of NCO are used, the free monomer contents of claims 20-21 and 24-25 are encompassed. The use of only 2,4’ MDI encompasses the instant claims 6-8. Free monomeric isocyanate meets the instant claim 14. The process claims are silent regarding reaction temperature and therefore encompass all temperatures at which polyols and polyisocyanates can react, which encompasses the instantly claimed reaction temperatures of the instant claims 27-29 because these reactions are well known to occur below the claimed temperatures, particularly when catalyst is used.

It would have at least been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to perform the methods and make the adhesives of the patentee such

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that they fall within the scope of the instant claims because the patentee's disclosure and claims encompasses the instantly claimed inventions and the instantly claimed adhesives and methods of making them would have been expected to give the properties disclosed by the patentee.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the component of the instant claim 23 in the adhesive of the patentee because Krebs teaches that up to 10% triisocyanate may be used at column 4, lines 40-52 and trimethylolpropane and glycerol are the most common and well known means for achieving such triisocyanate prepolymers by reacting them with the typical well known diisocyanate monomers. It would have at least been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the adhesion promoter of the instant claim 26 because Krebs teaches the use of additives to the adhesive to enhance its properties and aminosilanes having alkoxysilane functionality are well known for giving adhesion promotion to NCO functional hot melt adhesives and would have been expected to provide this function to the adhesives of Krebs.

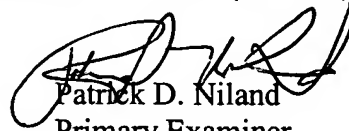
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'P. Niland', is written over the printed name.

Patrick D. Niland
Primary Examiner
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